Remarks

Claims 1-3, 6-10, and 13-17 are pending and at issue in the present application, claims 4, 5, 11, and 12 having been previously cancelled. This Amendment is filed contemporaneously with a Request for Continued Examination

Applicants who wish to thank Examiners Lipitz and Johnson for the courtesies extended during the telephonic interview conducted on May 3, 2010, with the undersigned. The following discussion is intended to summarize and amplify the matters discussed during such interview.

Applicants traverse the rejection of claims 1-3, 6, 7, 9, 10, 13 and 15 as anticipated by Gerdt. Apparently, the examiner also intended to reject claims 16 and 17 as anticipated by Gerdt, and such rejection is also traversed.

Applicants further traverse the rejection of claims 8 and 14 as obvious over Gerdt standing alone or as obvious over Gerdt in view of Goldman.

Claim 1, and claims 2, 3, 15, and 16 dependent directly or indirectly thereon, recite a phototherapy method acting on a set of eyes of an individual with a head, each eye comprising a pupil, a retina and a fovea, through light rays of at least one specific wavelength, emitted by at least one light source which is stationary relative to the head of the individual. The method comprises the steps of arranging the light source at the periphery of the field of vision so as to allow the usual activities of the individual and using a diffractive optical element to deflect the light rays by diffraction onto a specific zone of the retina so as to maintain vision.

Claims 6-10, 13, 14, and 17 specify a device for implementing a phototherapy method on a set of eyes of an individual with a head, wherein each eye comprises a pupil, a retina and a fovea. The device includes a support designed to be immobilized on the head of the individual and at least one light source mounted on the support at the periphery of a field of vision of the individual. The at least one light source emits light rays of at least one specific wavelength and is arranged so that the latter are directed into the eyes, by deflection means, onto a specific zone of the retina. The deflection means is recited as comprising at least one off-axis diffractive optical element for each eye.

Neither Gerdt nor Goldman discloses or suggests the use of a diffractive optical element (DOE) as specified by all of the claims at issue in the application. DOE's are known devices in the art, particularly off-axis DOE's, as noted by the following:

> Chapter 6 of "Handbook of Optical Engineering", edited by Brian J. Thompson and Daniel Malacara, CRC Press 2001, Print ISBN 978-0-8247-9960-1, eBook ISBN 978-0-203-90826-6. In the first paragraph of point 6.3.1, it is specified that: "*Off-axis diffractive optical elements have grating-like structures with submicron carrier frequency and diffraction efficiencies as high as 90%.*"
>
> Technical Programme of the 2005 SPIE Europe International Symposium on Optical Systems Design, Paper 5962-42, read in Session 5, entitled "*Design of off-axis diffractive optical elements in the resonance domain of light diffraction*".

Undersigned applicant's attorney is now attempting to obtain copies of the foregoing papers and will forward same to the attention of the examiner when received.

In addition, the following publications were noted during the telephonic interview:

a. "Handbook of Physics" by J. Harris, W. Benenson, H. Stöcker, Springer, 2002, p. 384

http://books.google.com/books?id=c60mCxGRMR8C&lpg=PA384&dq=diffractive%20optical%20element&lr&pg=PA384#v=onepage&q=diffractive%20optical%20element&f=false

"The structural dimensions of DOE are therefore only a few micrometers. The production of DOE, which are more complicated than simple diffraction gratings, has become possible only since the middle of the twentieth century."

b. "Iterative Methods for Diffractive Optical Elements Computation" by V.A. Soifer, V. Kotlyar, L. Doskolovich, 1997, p. vii

http://books.google.com/books?id=4Kmcthgc0xIC&lpg=PP1&dq=diffractive%20optical%20element&lr&pg=PR7#v=onepage&q=diffractive%20optical%20element&f=false

"The DOE is a phase-only element whose superficial microrelief has a height comparable with the light wavelength used."

c. "Micro-optics: elements, systems and applications" by H.P. Herzig, CRC Press, 1997, p. 2

http://books.google.com/books?id=pJGjwwQ4-DsC&lpg=PA2&dq=diffractive%20optical%20element&lr&pg=PA1#v=onepage&q=diffractive%20optical%20element&f=false

"Typical diffractive optical elements (DOEs) have multilevel microreliefs ('binary optics') or continuous microreliefs, with features ranging from submicron to millimetre dimensions and relief amplitudes of a few microns."

In summary, the use of DOEs in the present invention has significant advantages in that DOE's utilize very small-scale surface features, and hence, DOE's can be much flatter, and thus less bulky and heavy than equivalent concave or convex reflective or refractive elements. Also, when manufactured in

large quantities, DOE's can be produced at a much lower cost than equivalent concave or convex reflective or refractive elements.

Unexpectedly, in the present application, these technical advantages, in particular the lower weight and cost, have been found to outweigh the main drawback of DOEs, which is that, as strongly wavelength-dependent optical devices, such devices are only effective over very narrow wavelength ranges.

As noted during the telephonic interview, support for the use of DOE's is found at the following portions in the specification (references are to the English language specification):

a. DOE's generally – paragraph 37;

b. Off-axis diffractive lenses – paragraph 38;

c. Criteria values for diffractive lenses – paragraphs 42-48; and

d. Use of diffractive lens in the method and apparatus - paragraphs 49-57.

Also discussed during the telephonic interview was the recent CAFC decision in *In re Suitco Surface, Inc.* (Reexamination No. 90/007,015). In particular, the "Broadest reasonable interpretation" standard used by the USPTO has been clarified in the sense that terms in claims must be construed in light of the specification: "During reexamination, as with original examination, the PTO must give claims their broadest reasonable construction consistent with the specification." *In re ICON Health & Fitness, Inc.*, 496 F.3d 1374, 1379 (Fed. Cir. 2007) (citing *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004)).

The examiner suggested during the telephonic interview that the recitations of claim 7 be combined with claim 6. It is respectfully contended that such action is not necessary to place the claims in condition for allowance because such amendment is not required for definiteness and would unduly limit the scope of the claim in view of the cited references.

In order for a claim to be anticipated, a single prior art reference must disclose or suggest all of the recited limitations arranged or combined in the same way as recited in the claim. *Net MoneyIN, Inc. v. Verisign, Inc.*, 545 F.3d 1359, 1369 (Fed. Cir. 2008). Because Gerdt does not show all of the recited limitations as arranged or combined in the same way as recited in the claims at issue, it follows that such claims are not anticipated thereby.

In an obviousness inquiry, to support a *prima facie* case of obviousness based on a combination of prior art elements, an examiner must establish "a finding that the prior art included each element claimed, although not necessarily in a single prior art reference, with the only difference between the claimed invention and the prior art being the lack of actual combination of the elements in a single prior art reference." Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.* 72 Fed. Reg. 57,526 (Oct. 10, 2007). The cited items of art, alone or in combination, do not disclose or suggest the use of a diffractive optical element as recited by the claims at issue, and hence it follows that such claims are not rendered obvious thereby.

Reconsideration and allowance of the claims at issue are respectfully requested. The examiner is encouraged to call the undersigned attorney for applicants should he feel doing so would expedite prosecution of this application.

Deposit Account Authorization

The Commissioner is hereby authorized to charge any deficiency in any amount enclosed or any additional fees which may be required during the pendency of this application under 37 CFR 1.16 or 1.17, except issue fees, to Deposit Account No. 50-1903.

Respectfully submitted,

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By: 

June 7, 2010

William E. McCracken
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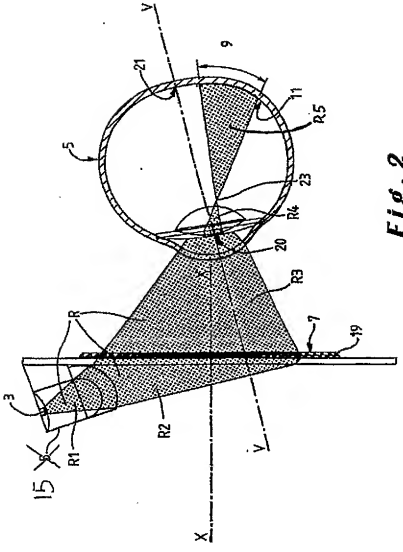

Fig. 2